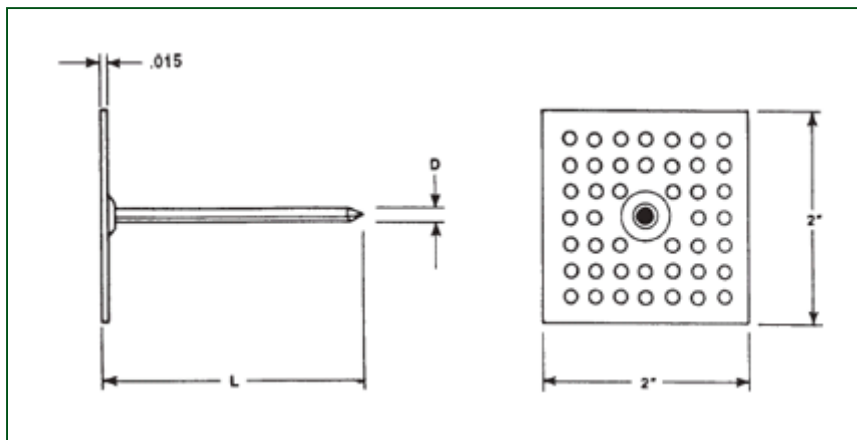


## SPINDLE

The Spindle type Insulation Anchor, or Insulation Hanger, is a fabricated 2" X 2" perforated metal base with insulation pin attached for impaling and installing various thermal and acoustical insulation materials. Popular materials for the spindle anchor are Mild Steel, Aluminum and Stainless Steel, with combinations of these materials also occurring for special applications. Typical insulation pin diameter is 12 gauge (0.105" dia.) and is used in conjunction with Self Locking Insulation Washers, or Speed Clips, and mounted using general purpose adhesive, like Midwest Fasteners IHA-177.



<b>SIZE :</b>	D	12 GA (.105" dia.) is standard. Other sizes available by special order only.
<b>LENGTH :</b>	L	1", 1-5/8", 2", 2-1/2", 3-1/2", 4-1/2", 5-1/2", 6-1/2", 8" and 9" are standard. Other lengths available by special order.

<b>PIN</b>
<b>MATERIAL :</b> LOW CARBON STEEL
<b>PLATING :</b> Galvanized coating is standard.

<b>PLATE</b>	<b>OTHER MATERIALS</b>
<b>MATERIAL :</b> LOW CARBON STEEL	Also available by special order in all Stainless Steel or all Aluminum
<b>PLATING :</b> Galvanized is standard.	
<b>WASHERS :</b> Self - locking washers are available in a variety of sizes, shapes. and materials.	

**TO ORDER OR SPECIFY, GIVE :**

1. Product code .....IHSP
2. Size .....12 GA
3. Length .....L
4. Material .....(if other than standard)

## IHA 177 INSULATION HANGER ADHESIVE

### Product Data Sheet for Anchor Adhesive

Anchor Adhesive is a high strength, heavy-bodied adhesive, specifically formulated for adhering anchors for hanging insulation. Anchor Adhesive bonds metal and nylon anchors to metal, concrete or masonry surfaces. Can also be used to install metal or ceramic wall fixtures in tile applications. Anchor Adhesive is also recommended for use as a general-purpose construction adhesive in applications requiring a high strength bond, or in applications subjected to high temperatures.

- |                                      |                      |
|--------------------------------------|----------------------|
| ◆ Excellent thermal shock resistance | ◆ High bond strength |
| ◆ Water resistant                    | ◆ Immediate grab     |
| ◆ Mildew resistant                   | ◆ Non-slip formula   |

### DIRECTIONS FOR USE:

1. **Use only after careful consideration of the warnings, directions, and first aid instructions given.**

2. **Surface Preparation:** Surfaces to be bonded should be clean, dry and free of any dust, frost, wax, moisture, dirt, grease, oil, rust, or other contaminants. Do not use over painted surfaces. Many protective coatings are not compatible with Anchor Adhesive.

3. **Adhesive Preparation:** Adhesive should be stored at room temperature (60°F to 80°F) for at least 24 hours prior to use.

4. **Working Temperature:** For best results, adhesive and materials to be bonded should be 30°F to 120°F.

5. **Adhesive Application:** Do not apply at temperatures below 30°F. Prepare and install one anchor at a time. Apply a dab (the size of a small walnut) of adhesive to the anchor base with a putty knife and immediately (maximum open time is 10 minutes) press anchor firmly into place, with a slight twisting motion. For proper adhesion, insure that the film of adhesive covering the anchor base (after the anchor has been firmly pressed into place) is protruding

#### 6. Installing Anchor Adhesive to Concrete Surfaces:

New concrete surfaces need to cure a minimum of 28 days in order to ensure best adhesion. All concrete surfaces should be high pressure water blasted or sand blasted to remove any surface curing agents and all foreign matter. Spread anchor adhesive on anchor base allowing solvent to flash off for several minutes before pressing anchor firmly into place with a slight twisting motion. Do not apply load until application is completely dry.

### TYPICAL PHYSICAL PROPERTIES AND TECHNICAL INFORMATION:

**Base:** Thermoplastic Rubber

**Type:** Solvent

**Solids Content:** 64%

**Color:** Light Brown

**Weight/gallon:** 9.0 lbs./gal.

**Shear Strength:** Greater than 600 psi (AFG 01)

**Water Resistance:** Excellent

**Consistency:** Gun Grade Mastic

**Application Temperature:** 30°F to 120°F

**Extrudability:** Excellent (ASTM C 731)

**Service Temperature:** -30°F to 250°F

**Shelf Life:** 12 months

*cont...*

**Storage Temp:** Store at room temperature with cross ventilation.

**Clean-up:** Mineral Spirits, exercising safe practices OSHA Class 1B liquid. Store per 29 CFR 1910, 106.

**Coverage:** 500-1000 anchors per gallon

**Flammability:** Flammable, Red Label

**Flash point:** (ASTM D 3828) -9°F

**Open time:** 15 minutes at 75°F and 50% relative humidity

### CAUTIONARY INFORMATION

**Contains:** Toluene and Silica, Quartz

**Warning:** This product contains Silica, Quartz, a chemical known to the State of California to cause cancer. This product contains Toluene a chemical known to the State of California to cause birth defects or other reproductive harm. Cancer Hazard: Contains Crystalline Silica which may cause cancer. Risk of cancer depends on duration and level of exposure. VAPOR HARMFUL, MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA. CAUSES EYE, SKIN, NOSE AND THROAT IRRITATION. MAY BE HARMFUL IF ABSORBED THROUGH SKIN.

**NOTICE:** Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the content may be harmful or fatal. Use only with adequate ventilation: Vapors may ignite explosively. Do not breathe the dust, vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH/MSHA approved) during and after application. Follow respirator manufacturer's directions for respirator use. Close container after each use. Keep away from heat, sparks and flame: Do not smoke. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Prevent build-up of vapors by opening all windows and doors to achieve cross-ventilation. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. VAPORS MAY CAUSE FLASH FIRE.

**First Aid:** If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately. In case of eye contact, flush immediately with plenty of water for at least 15 minutes and get medical attention immediately; for skin, wash thoroughly with soap and water. If swallowed, do not induce vomiting. Call Poison Control Center, Hospital Emergency Room or Physician immediately. If spilled: Contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and Federal regulations.

### KEEP OUT OF THE REACH OF CHILDREN

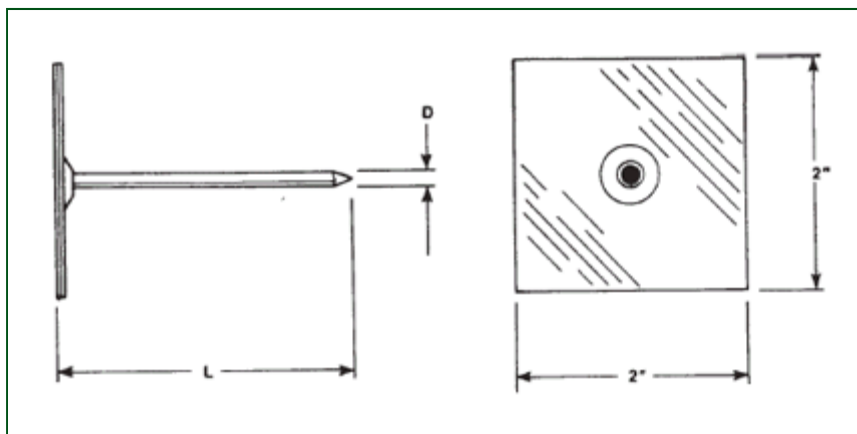
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**Notice to Purchaser:** NO WARRANTIES, EXPRESS OR IMPLIED ARE MADE INCLUDING MERCHANTABILITY AND/OR FITNESS FOR A PARTICULAR PURPOSE. UNDER NO CIRCUMSTANCES SHALL THE MANUFACTURER BE LIABLE FOR ANY LOSS OR DAMAGE ARISING FROM THE PURCHASE, USE, OR INABILITY TO USE THIS PRODUCT, OR FOR ANY SPECIAL, INDIRECT INCIDENTAL, OR CONSEQUENTIAL DAMAGES. IF SUCH TESTING PROVES A PRODUCT DEFECT, THE USER'S SOLE AND EXCLUSIVE REMEDY IS EITHER REIMBURSEMENT OF THE PURCHASE PRICE OF THE PRODUCT OR REPLACEMENT OF THE CONTAINER OF PRODUCT. NO FABRICATOR, INSTALLER, DEALER, AGENT OR EMPLOYEE HAS THE AUTHORITY TO MODIFY THE OBLIGATIONS OR LIMITATION OF THIS WARRANTY.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state; therefore, some of the limitations stated above may not apply to you. It is to your benefit to save your documentation upon purchase of a product. Rev. 03-07

## SELF - STICK

The Self Stick Insulation Anchor, or Stick-Up Hanger, is a fabricated 2" X 2" metal base with Self Stick adhering double-sided tape on the reverse, or installation side of the anchor base. An insulation pin is pre-attached for impaling and installing various thermal and acoustical insulation materials. Popular materials are Mild Steel, Aluminum and Stainless Steel, with combinations of these materials also occurring for special applications. Typical insulation pin diameter is 12 gauge (0.105" dia.), while other diameters are available. This insulation anchor and is used in conjunction with Self Locking Insulation Washers, or Speed Clips.



<b>SIZE :</b>	D	12 GA (.105" dia.) is standard. Other sizes available by special order only.
<b>LENGTH :</b>	L	1", 1-5/8", 2", 2-1/2", 3-1/2", 4-1/2", 5-1/2", 6-1/2", 8" and 9" are standard. Other lengths available by special order.

<b>PIN</b>
<b>MATERIAL :</b> LOW CARBON STEEL
<b>PLATING :</b> Galvanized coating is standard.

<b>PLATE</b>	<b>OTHER MATERIALS</b>
<b>MATERIAL :</b> LOW CARBON STEEL	Also available by special order in all Stainless Steel or all Aluminum
<b>PLATING :</b> Galvanized coating is standard.	
<b>WASHERS :</b> Self - locking washers are available in a variety of sizes, shapes, and materials.	

**TO ORDER OR SPECIFY, GIVE :**

1. Product code .....IHSS
2. Size .....12 GA
3. Length .....L
4. Material .....(if other than standard)

## IMPORTANT NOTICE TO PURCHASER

All statements, technical information and recommendations contained herein are based on facts we believe to be reliable, but the accuracy or completeness thereof is not guaranteed, and the following is made in lieu of all warranties, express or implied.

Seller's and manufacturer's only obligation shall be to replace such quantity of the product proved to be defective. Neither seller nor manufacturer shall be liable for any injury, loss or damage, direct or consequential, arising out of the use of or the inability to use the product.

Before using, user shall determine the suitability of the product for his intended use and user assumes all risk and liability whatsoever in connection therewith.

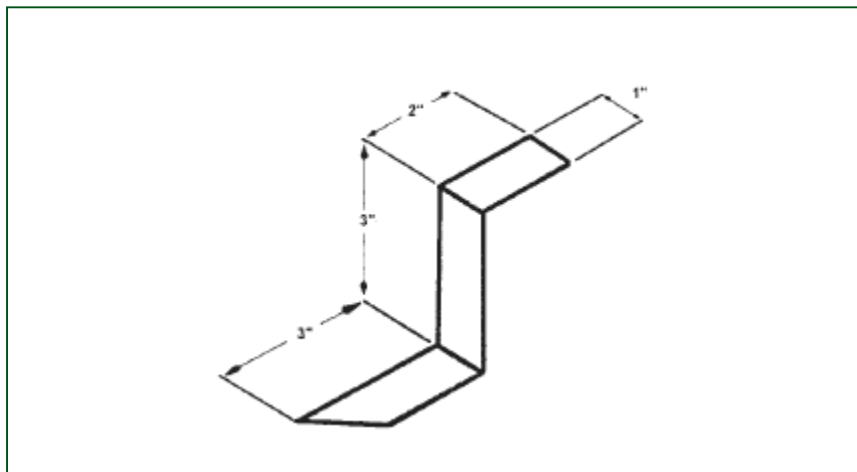
No statement or recommendation not contained herein shall have any force or effect unless in an agreement signed by officers of seller and manufacturer.

## GUIDELINES FOR SELF STICK INSUL-ANCHORS

1. Must be applied to a clean, non-porous surface, that is free of all oil, film, dust, rust, etc.
2. Not generally recommended on painted surfaces, drywall, nor ceilings of metal buildings.
3. Best results are obtained when ambient temperature is above 40 degrees F. at time of application.
4. Temperature range for the foam tape is from -20 degrees to +180 degrees F.
5. Loading should not exceed 3 lbs. per anchor (.75 lb./sq. inch).
6. Base must be applied with firm pressure. Do not twist during application. Do not remove release (backing) paper until ready to use.
7. Insulation may be applied immediately after bond is made.

## SAFING "Z" CLIP

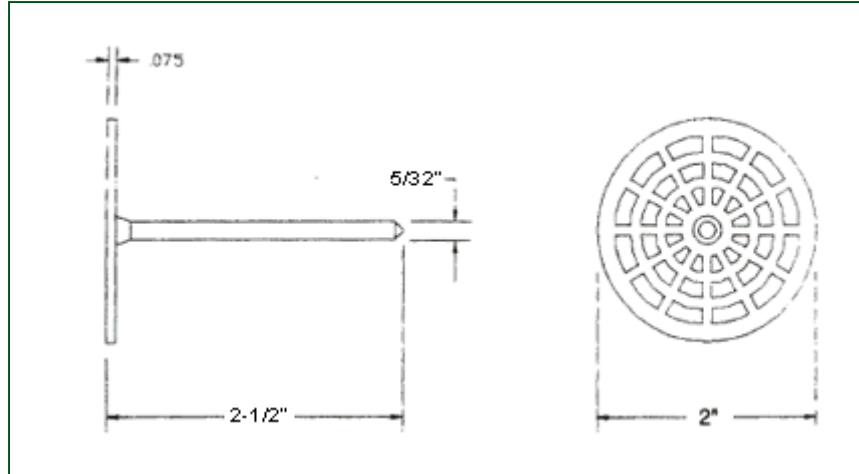
The Safing Clip type Insulation Hanger, is a fabricated 2" X 3" X 3" X 1" Z-shaped metal clip. Manufactured from galvanized coated Mild Steel, this clip is used in fireproofing applications for installation of fire-stopping safing material between floors in high-rise construction. The insulation material is impaled on the safing clip and installed in recesses at the edge of the floor joint.



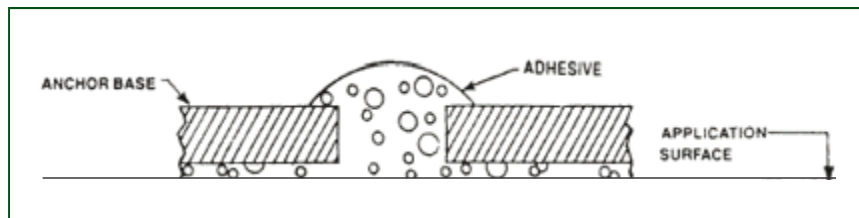
- SIZE :** 2 "x 3" x 3" x 1" standard size
- LENGTH :** 20 Gauge, Mild Steel
- PLATING :** Galvanized is standard
- APPLICATION :** For use in installation of fire barrier and sound barrier safing insulations.  
This non-welded fastener is used as a support bracket to impale and secure insulating materials between floor slab and spandrels at floor edge or anywhere that support for material is required.
- STANDARD PACKAGING :** 500 per carton (43lbs. carton weight - approximately)
- TO ORDER OR SPECIFY, GIVE :**
1. Product code .....ZCLIP
  2. Size .....(if other than standard)
  3. Material .....(if other than standard)

## NYLON

The Nylon Insulation Anchor, or Hanger, is a molded 2-1/2" nylon pin with a 2" round, slotted base. This type insulation pin is used to attach insulation material by impaling for various thermal and acoustical insulation materials. The pin is 5/32" diameter and is 2-1/2" in length in the molded, nylon insulation anchor. It is used in conjunction with a special Self Locking Insulation Washers, or Speed Clips, which locks on the 5/32" nail and general purpose adhesive, like Midwest Fasteners IHA-177.



- SIZE :** D 5/32" dia. is standard.
- LENGTH :** L 2-1/2" length is standard.
- MATERIAL :** This is a one-piece insul-anchor of molded nylon.
- FEATURE :**
- Can be used for insulation up to 2" thick
  - Has a base area 14% larger than similar nylon anchors with a round base.
  - Has 21% more perforated area for glue extrusion than similar nylon anchors.
  - Uses 30% less adhesive than metal insul-anchors with a 2" round base
  - Will not conduct heat or cold.
  - Lighter in weight than metal anchors for ease of handling.



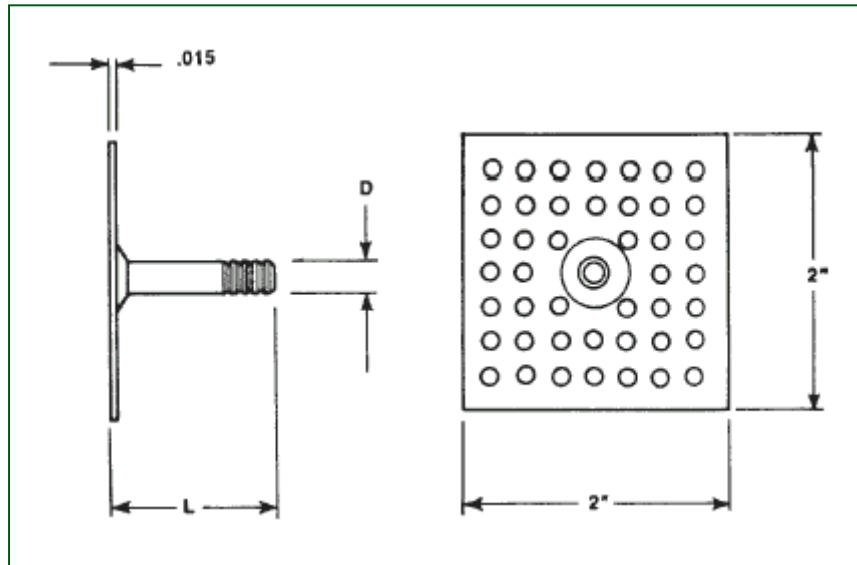
**WASHERS :** Self - locking washers for use with this insul-anchor is the WAMS-120-156. These washers are packed with anchors.

**TO ORDER OR SPECIFY, GIVE :**

1. Product code .....IHN Y

## ANNULAR RING ANCHOR-BOLT

The Annular Ring Anchor Bolt, or Insulation Hanger, is a fabricated 2" X 2" perforated metal base, with a 3/16" annular ring pin attached for impaling and installing various thermal and acoustical insulation materials, quite often in marine applications. Popular materials are Mild Steel, Aluminum and Stainless Steel, with combinations of these materials also occurring for special applications. The annular insulation pin length is popular in 7/8" increments for marine insulation and hull applications. This type insulation fastener is used in conjunction with [Self Locking Insulation Washers](#), or Speed Clips, and the [Annular Ring Cap](#), or "Navy Cap" sized to fit the annular ring pin. Application is completed with general purpose Insulation Anchor adhesive, like [Midwest Fasteners IHA-177](#).



<b>SIZE :</b>	D	3/16 nominal. Actual ring diameter is .175".
<b>LENGTH :</b>	L	7/8, 1-7/8, 2-7/8, and 3-7/8 are standard. Other lengths available by special order.

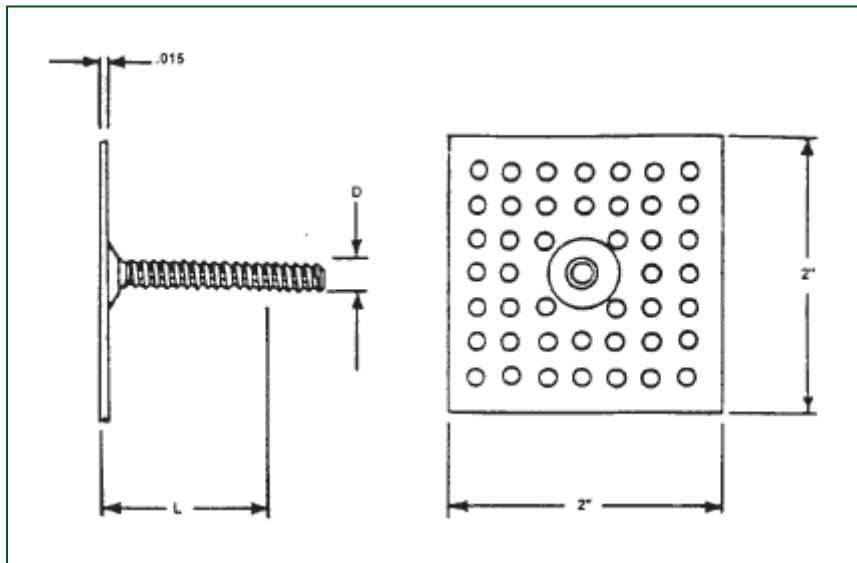
PLATE	BOLT
<b>MATERIAL :</b> LOW CARBON STEEL	LOW CARBON STEEL
<b>PLATING :</b> Galvanized is standard.	Copper plating is standard.
<b>OTHER MATERIALS :</b> Available by special order only.	
<b>RETAINING CAP :</b> The cap for use with this anchor-bolt is the MCAL part no. MCAL-625-875.	

### TO ORDER OR SPECIFY, GIVE :

1. Product code .....IHAB
2. Size .....D
3. Length .....L
4. Material .....(if other than standard)

## THREADED ANCHOR-BOLT

The Anchor Bolt Insulation Hanger is a fabricated 2" X 2" perforated metal base, with a threaded stud attached. Popular materials are Mild Steel while special orders are made in Aluminum and Stainless Steel, with combinations of these materials also occurring for special applications. The stud length can range from 1/4" to 3" long, usually in 1/4" increments. Standard hex nuts and washers can be used with the Anchor Bolt for final attachment and general purpose adhesive, like Midwest Fasteners IHA-177.



<b>SIZE :</b>	D	#10-24 is standard. Other sizes available by special order
<b>LENGTH :</b>	L	3/4" to 3" long, in 1/4" increments as standard. Other lengths available by special order.

PLATE	BOLT
<b>MATERIAL :</b> LOW CARBON STEEL	LOW CARBON STEEL
<b>PLATING :</b> Galvanized plating is standard.	Copper plating is standard.
<b>OTHER MATERIALS :</b> Available by special order only.	
<b>HARDWARE :</b> Hex nuts, flat washers and lock washers are available in a variety of materials.	

**TO ORDER OR SPECIFY, GIVE :**

1. Product code .....IA AB-THD
2. Size .....D
3. Length .....L
4. Material .....(if other than standard)